

Erratum to: Translational Modeling in Schizophrenia: Predicting Human Dopamine D₂ Receptor Occupancy

Martin Johnson^{1,6} • Magdalena Kozielska^{1,7} • Venkatesh Pilla Reddy^{1,6} • An Vermeulen² • Hugh A. Barton³ • Sarah Grimwood³ • Rik de Greef⁴ • Geny M. M. Groothuis¹ • Meindert Danhof⁵ • Johannes H. Proost¹

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There occurred two errors in the above manuscript (Pharm Res. 2015 Dec 30 [Epub ahead of print]). The correct information is as follows:

- 1) The differential equations in Appendix 2 should read:

$$\begin{aligned}d(A_{bv})/dt &= (CL_{bv}/V_{plasma}) * A_{plasma} - (CL_{bv}/V_{bv}) * A_{bv} - (CL_{bv}/V_{bv}) * fu_{plasma} * A_{bv} \\&+ (CL_{bv}/V_{bv}) * fu_{brain} * A_{bev} + (CL_{eff}/V_{bev}) * fu_{brain} * A_{bev} \\d(A_{bev})/dt &= (CL_{bv}/V_{bv}) * fu_{plasma} * A_{bv} - (CL_{bv}/V_{bev}) * fu_{brain} * A_{bev} - (CL_{eff}/V_{bev}) * fu_{brain} * A_{bev} \\&- (CL_{st}/V_{bev}) * fu_{brain} * A_{bev} + (CL_{st}/V_{stf}) * fu_{brain} * A_{stf} \\d(A_{stf})/dt &= (CL_{st}/V_{bev}) * fu_{brain} * A_{bev} - (CL_{st}/V_{stf}) * fu_{brain} * A_{stf} - kon * fu_{brain} * A_{stf} * (B_{max} - CB) \\&+ koff * A_{stb} \\d(A_{stb})/dt &= kon * fu_{brain} * A_{stf} * (B_{max} - CB) - koff * A_{stb}\end{aligned}$$

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✉ Johannes H. Proost
j.h.proost@rug.nl

- ¹ Department of Pharmacokinetics, Toxicology and Targeting, Groningen Research Institute of Pharmacy, University of Groningen, Antonius Deusinglaan 1, 9713 AV Groningen, The Netherlands
- ² Clinical Pharmacology & Pharmacometrics, Janssen Research and Development, A Division of Janssen Pharmaceutica NV, Beerse, Belgium
- ³ Worldwide Research & Development, Pfizer, Inc., Groton, Connecticut, USA
- ⁴ Quantitative Solutions, Pivot Park, Molenweg 79, 5349 AC Oss, The Netherlands
- ⁵ Division of Pharmacology, Leiden Academic Center for Drug Research, Leiden, The Netherlands
- ⁶ Present address: AstraZeneca, Cambridge, UK
- ⁷ Present address: Institute of Engineering, Hanze University of Applied Sciences, Assen, The Netherlands

2) Table III should read:

Table III *In vitro*, *in vivo* and *ex vivo* values estimates used in the human D₂RO predictive model.

	Clozapine	Haloperidol	Olanzapine	Paliperidone	Quetiapine	Risperidone
Fraction unbound in brain	0.011 ^a	0.023 ^b	0.034 ^a	0.0755 ^c	0.025 ^a	0.0699 ^c
Fraction unbound in plasma	0.0300 ^d	0.0800 ^e	0.0700 ^m	0.226 ^f	0.170 ^e	0.100 ^f
Approach A: Human D ₂ RO predictions based on <i>in vitro</i> information						
Papp × 10 ⁻⁶ (cm/s)	28.3 ^a	28.6 ^a	15.7 ^a	16.8 ^g	33.0 ^a	19.8 ^g
CL _{be_v} (L/h) derived from Papp	20.4	20.6	11.3	7.80	23.8	12.96
Efflux ratio	—	—	—	2.10 ^g	—	1.20 ^g
CL _{eff} (L/h) based on ER	—	—	—	8.58	—	2.59
<i>In vitro</i> K _i (nM)	82.0 ^h	0.700 ^h	5.10 ⁱ	2.075 ^e	155 ^h	2.175 ^e
k _{off} (h ⁻¹)	83.16 ^h	1.02 ^h	2.34 ^h	1.56 ^{j,n}	180.78 ^h	1.56 ^j
Approach B: Human D ₂ RO predictions based on <i>in vivo</i> information						
Papp _{calc} × 10 ⁻⁶ (cm/s)	—	—	100	493 ⁿ	—	493
CL _{be_v} (L/h) based on Papp _{calc}	—	—	72.2	355 ⁿ	—	355
CL _{eff} (L/h) scaled from rat	—	—	NA	11594	—	2486
k _{off} (h ⁻¹)	—	—	3.04 ^k	0.671 ^{l,n}	—	0.671 ^l
Approach C: Human D ₂ RO predictions integrating <i>in vitro</i> and <i>in vivo</i> information						
Corrected <i>In vivo</i> K _d (nM)	—	—	4.38	0.352	—	0.395

NA Not applicable

^a Reference (32); ^b Reference (33); ^c Reference (34); ^d Reference (35); ^e In-house values; ^f Reference (36); ^g Reference (37);

^h Reference (38); ⁱ Reference (39); ^j Reference (5); ^k Reference (7); ^l Reference (8); ^m Reference (40); ⁿ Assumed to be equal to risperidone